

REMARKS

Claims 1-19 are presently pending in the application. Please cancel claims 8-10 without prejudice to future presentation. New claims 20-23 have been added. It is believed that these amendments do not constitute new matter and their entry is requested.

Elections/Restrictions

In response to the restriction requirement, Applicants affirm election of the invention of Group I, i.e., claims 1 and 4-19.

Claim objections

Claims 4 and 15 were objected to for being dependent on non-elected claims. Claims 4 and 15 have been amended to recite a nucleic acid encoding the protein of SEQ ID NO:2. It is believed that these amendments overcome this objection and its withdrawal is requested.

35 U.S.C. 112, second paragraph rejections

Claims 5-19 were rejected for being indefinite. Claims 8-10 have been canceled and claims 4-7 and 11-19 have been amended. It is believed that these amendments overcome the rejection of the claims for indefiniteness and the withdrawal of this ground of rejection is requested.

35 U.S.C. 112, first paragraph rejections

Claims 4-19 were rejected for lack of written description. The Examiner is of the opinion that the Specification discloses an amino acid of SEQ ID NO:2 but does not disclose any specific structural physical and/or chemical properties for the claimed sequence.

The claims have been amended to recite nucleic acids encoding the protein of SEQ ID NO:2 or a protein that contains at least 70% sequence identity with SEQ ID NO:2 and can form dimers, bind to the same DNA binding sites as NAC1 and cause plants transformed with a nucleic acid encoding the protein to grow larger than a plant not transformed with a nucleic acid encoding the protein. Support for these amendments can be found, *inter alia*, at page 2, second full paragraph.

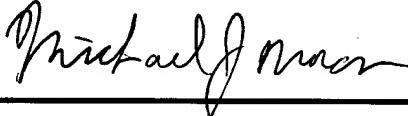
Based on the amendment, it is respectfully submitted that the claims recite specific structural and physical and/or chemical properties (70% sequence identity) and also recite functional properties (dimerization, DNA binding and increased growth) for the claimed nucleic acids. It is well established that claims can be described in terms of a known structure with a known function. It is respectfully submitted that the amendments to the claims satisfy the written description requirements and withdrawal of this grounds of rejection is requested.

Claims 4-19 were also rejected under 35 U.S.C. 112, first paragraph, for lack of enablement. The Examiner states at page 9 of the Office Action (Paper # 6) that it cannot be predicted if sequences exhibiting 70% sequence identity to SEQ ID NO:2 will encode a protein with the same activity as SEQ ID NO:2. In response, applicants note that the claims have been amended to recite nucleic acids which encode proteins with the recited identity and the same activity as the protein of SEQ ID NO:2, *i.e.*, forming dimers, binding to the same site as NAC1, and causing a plant transformed with said nucleic acid to grow larger.

The Examiner asserts at page 10 of the Office Action that the state of the art (in particular Takada *et al.*) teaches that transforming a plant with transcription factors that contain a NAC domain produces unpredictable results. In support of this assertion, the Examiner cites to Takeda *et al.* for teaching that CUP-SHAPED COTYLEDON1 (CUC1) possesses a NAC domain that when overexpressed produces ectopic meristems on the adaxial side of cotyledons and some leaves. The claims as amended recite a nucleic acid encoding a protein that is NAC1 as in SEQ ID NO:2 or a protein that has the same functions. The claims do not merely recite a protein that comprises a NAC domain. Thus, even assuming that CUC1 contains a NAC domain, as noted page 5 of the specification, the NAC gene family contains various distinct genes and sub-families that are conserved at the N-terminus only. It is respectfully submitted that CUC1 and NAC1 are distinct polypeptides and the effects seen with overexpression of one polypeptide or protein cannot support an assertion that the phenotype associated with another polypeptide or protein will be unpredictable. It is the Examiner's burden to provide sufficient technical reasons as to why a claim is not enabled and the Examiner's analysis of Takada does not provide the necessary support.

In view of the above amendments and remarks, it is believed that all of the presently pending claims and newly submitted claims satisfy the requirements of the patent statutes.

Reconsideration of the instant application, withdrawal of all rejections and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

RESPECTFULLY SUBMITTED,					
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